

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Ravin BALAKRISHNAN, et al.

Application No.: Unassigned

Group Art Unit: Unassigned

Filed: August 11, 2003

Examiner: Unassigned

For: DIGITAL TAPE DRAWING SYSTEM

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure provisions of 37 CFR § 1.56, there is hereby provided certain information which the Examiner may consider material to the examination of the subject U.S. patent application. It is requested that the Examiner make this information of record if it is deemed material to the examination of the subject application.

1. Enclosures accompanying this Information Disclosure Statement are:

- 1a.  Form PTO-1449.
- 1b.  Copies of IDS citations.
- 1c.  An English language copy of search report(s) from a counterpart foreign application or a PCT International Search Report.
- 1d.  English language translation (complete or relevant portion(s)) attached to each non-English language publication.
- 1e.  Explanations of Relevancy of References (ATTACHMENT 1(e), hereto) for providing a concise explanation of each non-English publication.
- 1f.  List of Copending Applications (ATTACHMENT 1(f), hereto).
- 1g.  List of Additional Submitted Documents (ATTACHMENT 1(g), hereto).

2.  This Information Disclosure Statement is filed under 37 CFR §1.97(b):

*(Check either Item 2a or 2b or 2c or 2d)*

- 2a.  Within three months of the filing date of a national application other than a Continued Prosecution Application under § 1.53(d);
- 2b.  Within three months of the date of entry of the national stage as set forth in § 1.491 in an international application.
- 2c.  Before the mailing of a first Office Action on the merits; or
- 2d.  Before the mailing of a first Office Action after the filing of a Request for Continued Examination under § 1.114.

3.  This Information Disclosure Statement is filed under 37 CFR § 1.97(c) after the period specified in paragraph 2 above but before the mailing date of any of a Final Office Action under § 1.113, a Notice of Allowance under § 1.311 or an action that otherwise closes prosecution in the application, AND

*(Check either Item 3a or 3b; Item 3b to be checked if any reference known for more than 3 months)*

3a.  The §1.97(e) Statement in Item 5 below is applicable; OR  
3b.  The \$180.00 fee set forth in 37 C.F.R. §1.17(p) is:  
     enclosed.  
     to be charged to Deposit Account No. 19-3935.

4.  This Information Disclosure Statement is filed under 37 CFR §1.97(d) after the period specified in paragraph 3 above, but on or before payment of the Issue Fee, AND

4a.  The § 1.97(e) Statement in Item 5 below is applicable; AND  
4b.  The \$180.00 fee set forth in 37 C.F.R. §1.17(p) is:  
     enclosed.  
     to be charged to Deposit Account No. 19-3935.

5.  Statement under § 1.97(e) (*applicable if Item 3a or Item 4a is checked*)

*(Check either Item 5a or 5b)*

5a.  In accordance with 37 CFR § 1.97(e)(1), it is stated that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.

5b.  In accordance with 37 CFR § 1.97(e)(2), it is stated that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in this Information Disclosure Statement was known by any individual designated in §1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

6.  This is a continuation/divisional/continuation-in-part application under 37 CFR § 1.53(b).

*(Check appropriate Items 6a and/or 6b)*

6a.  Copies of the publications listed on the attached Form PTO-1449 which were previously cited in prior application Serial No. \_\_\_\_\_, filed on \_\_\_, and which is relied on for an earlier effective filing date for the subject application under 35 U.S.C. § 120, have been omitted pursuant to 37 CFR § 1.98(d).

6b.  Copies of the publications listed on the attached Form PTO-1449 which were not previously cited in prior application Serial No. 09/406,088, filed on September 24, 1999, and which is relied on for an earlier effective filing date for the subject application under 35 U.S.C. § 120, are provided herewith.

7.  This is a continuation/divisional application under 37 CFR § 1.53(d) or a Request for Continued Examination under 37 CFR 1.114.  
*(Check either Item 7a or 7b)*

7a.  The Issue Fee has not been paid.

7b.  A Petition to Withdraw from issue under 37 CFR § 1.313(c) is filed concurrently herewith or has been granted. A continuation/divisional application under 37 CFR § 1.53(d) or a Request for Continued Examination under 37 CFR 1.114, after payment of the Issue Fee, is proper in accordance with 37 CFR § 1.53(d)(1)(ii) or 37 CFR 1.114(a), respectively.

8.  This is a Supplemental Information Disclosure Statement.  
*(Check either Item 8a or 8b)*

8a.  This Supplemental Information Disclosure Statement under 37 CFR § 1.97(f) supplements the Information Disclosure Statement filed on \_\_\_. A bona fide attempt was made to comply with 37 CFR § 1.98, but inadvertent omissions were made. These omissions have been corrected herein. Accordingly, additional time is requested so that this Supplemental IDS can be considered as if properly filed on \_\_\_.

8b.  This Supplemental Information Disclosure Statement is timely filed within one (1) month of the Notice under 37 CFR § 1.97 and 1.98, mailed \_\_\_.

9.  In accordance with 37 CFR § 1.98, a concise explanation of what is presently understood to be the relevance of each non-English language publication is:  
*(Check appropriate Items 9a, 9b, 9c and/or 9d)*

9a.  satisfied because all non-English language publications were cited on the enclosed "English language version of the search report or action which indicates the degree of relevance found by the foreign office". (See MPEP § 609, Minimum Requirements for an Information Disclosure Statement, Part A(3): Concise Explanation of Relevance, 8th Ed.)

9b.  set forth in the application.

9c.  satisfied because an English language translation (complete or relevant portion(s)) is attached to each non-English language publication.

9d.  enclosed as Attachment 1(e), hereto.

10. No admission is made that the information cited in this Statement is, or is considered to be, material to patentability nor a representation that a search has been made (other than search report(s) from a counterpart foreign application or a PCT International Search Report, if submitted herewith). 37 CFR §§ 1.97(g) and (h).

11. The Commissioner is authorized to credit any overpayment or charge any additional fee required under 37 CFR § 1.17 for this Information Disclosure Statement to Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Dated: 8/11/03  
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By:   
J. Randall Beckers  
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FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTORNEY DOCKET NO. 1252.1023C	APPLICATION NO. Unassigned
LIST OF REFERENCES CITED BY APPLICANT <i>(Use several sheets if necessary)</i>			FIRST NAMED INVENTOR Ravin BALAKRISHNAN, et al.	
			FILING DATE August 11, 2003	GROUP ART UNIT Unassigned

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA	4,888,713	12/89	Falk			
	AB	5,228,124	7/93	Kaga et al.			
	AC	5,237,647	8/93	Roberts et al.			

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION YES    NO
	AD						

**OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)****TRANSLATION  
YES    NO**

	AE	[1] Bier, E. A., Stone, M. C., Pier, K., Buxton, W., & DeRose, T.D. (1993). Toolglass and magic lenses: The see-through interface. <i>Proceedings of the ACM Sig-graph Conference</i> , 73-80, New York: ACM.		
	AF	[2] Cutler, L.D., Frohlich, B., & Hanrahan, P. (1997). Two-handed direct manipulation on the responsive workbench. <i>Proceedings of the 1997 Symposium on Interactive 3D Graphics</i> , 107-114, New York: ACM.		
	AG	[3] Elrod, S., Bruce, R., Gold, R., Goldberg, D., Halasz, F., Janssen, W., Lee, D., McCall, K., Pedersen, E., Pier, K., Tang, J., & Welch, B. (1992). Liveboard: a large interactive display supporting group meetings, presentations and remote collaboration. <i>Proceedings of the CHI'92 Conference on Human Factors in Computing Systems</i> , 599-607, New York: ACM.		
	AH	[4] Guiard, Y. (1987). Asymmetric division of labour in human skilled bimanual action: The kinematic chain as a model. <i>Journal of Motor Behaviour</i> , 19, 486-517.		
	AI	[5] Hinckley, K., Pasuch, R., Goble, J.C., & Kassell, N.F. (1994). Passive real-world interface props for neuro-surgical visualization. <i>Proceedings of the CHI'94 Conference on Human Factors in Computing Systems</i> , 452-458, New York: ACM.		
	AJ	[6] Hinckley, K., Pausch, R., Proffitt, D., Patten, J., & Kassell, N. (1997). Cooperative bimanual action. <i>Proceedings of the CHI'97 Conference on Human Factors in Computing Systems</i> , 27-34, New York: ACM		
	AK	[7] Hinckley, K., Pausch, R., & Proffitt, D. (1997). Attention and visual feedback: The bimanual frame of reference. <i>Proceedings of the 1997 Symposium on Interactive 3D Graphics</i> , 121-126, ACM.		
	AL	[8] Hinckley, K., & Sinclair, M. (in press). Touch-sensing input devices. To appear in the <i>Proceedings of the CHI'99 Conference on Human Factors in Computing Systems</i> . New York: ACM.		

	AM	[9] Kabbash, P., Buxton, W., & Sellen, A. (1994). Two-handed input in a compound task. <i>Proceedings of the CHI'94 Conference on Human Factors in Computing Systems</i> , 417-423, New York: ACM.		
	AN	[10] Krueger, M. (1991). VIDEOPLACE and the interface of the future. <i>The Art of Human Computer Interface Design</i> , ed. Brenda Laurel, 417-422, Menlo Park, CA: Addison Wesley.		
	AO	[11] Kurtenbach, G., Fitzmaurice, G., Baudel, T., & Buxton, W. (1997). The design of a GUI paradigm based on tablets, two-hands, and transparency. <i>Proceedings of the CHI'97 Conference on Human Factors in Computing Systems</i> , 35-42, New York: ACM.		
	AP	[12] Leganchuk, A., Zhai, S., & Buxton, W. (in press). Manual and cognitive benefits of two-handed input: An experimental study. To appear in <i>ACM Transactions on Computer-Human Interaction</i> , New York: ACM.		
	AQ	[13] Zeleznik, R. C., Forsberg, A. S., & Strauss, P. S. (1997). Two pointer input for 3D interaction. <i>Proceedings of the 1997 Symposium on Interactive 3D Graphics</i> , 115-120, New York: ACM. CHI Letters vol 1, 1 169		
	AR			
EXAMINER		DATE CONSIDERED		
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.				

**ATTACHMENT 1(f)**

<b>LIST OF COPENDING APPLICATIONS</b>	ATTORNEY DOCKET NO.	APPLICATION NO.
	1252.1023C	
	FIRST NAMED INVENTOR	
	Ravin BALAKRISHNAN, et al.	

FILING DATE	GROUP ART UNIT
August 11, 2003	Unassigned

The following, prior-filed, copending U.S. patent application(s) is/are listed in accordance with the duty of disclosure provisions of 37 CFR § 1.56, so that the Examiner may consider same should he deem any thereof to be material to examination of the subject application. Pursuant to 37 CFR 1.98(a)(2)(iii), a copy of the identified copending application(s) is provided.

It is requested that the Examiner acknowledge his consideration of application(s) below-listed by initialling same in the space provided adjacent each such application and that the Examiner sign and date this form at the bottom thereof to confirm such consideration having been given.

**This submission in no way represents an admission that any of the information listed herein constitutes prior art with respect to the subject application and unless and until such prior art status is established, this submission is not a request that the information presented herein be printed on the face of any patent issuing from the subject application in which this information is being filed.**

**U.S. PATENT APPLICATION DOCUMENTS**

EXAMINER INITIAL		U.S. SERIAL NO.	FILING DATE	NAME	ASSIGNEE
	1	09/406,088	9/24/9	Ravin BALAKRISHNAN et al.	
	2				
	3				
	4				
	5				
	6				
	7				
	8				

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

**ATTACHMENT 1(g)**

<b>LIST OF ADDITIONAL SUBMITTED DOCUMENTS</b>	ATTORNEY DOCKET NO.	APPLICATION NO.
	1252.1023C	Unassigned
	FIRST NAMED INVENTOR	
	Ravin BALAKRISHNAN	
FILING DATE	GROUP ART UNIT	
Unassigned	Unassigned	

The following document(s) is/are listed in accordance with the duty of disclosure provisions of 37 CFR § 1.56, so that the Examiner may consider same should he deem any thereof to be material to examination of the subject application. Pursuant to 37 CFR 1.98(a)(2)(iii), a copy of any identified copending application(s) is provided.

It is requested that the Examiner acknowledge his consideration of document(s) below-listed by initialling same in the space provided adjacent each such application and that the Examiner sign and date this form at the bottom thereof to confirm such consideration having been given.

**This submission in no way represents an admission that any of the information listed herein constitutes prior art with respect to the subject application and unless and until such prior art status is established, this submission is not a request that the information presented herein be printed on the face of any patent issuing from the subject application in which this information is being filed.**

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL		DOCUMENT NO.	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION YES    NO
	AC						
	AD						

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)						TRANSLATION YES    NO
	AE	Balakrishnan, Ravin et al. (1999). Exploring Interactive Curve and Surface Manipulation Using a Bend and Twist Sensitive Input Strip, Alias/wavefront, Toronto, Ontario, Canada and Dept. of Computer Science University of Toronto, Toronto, Ontario, Canada				
	AF	Balakrishnan, Ravin et al., Digital Tape Drawing, Alias/wavefront, Toronto, Ontario, Canada and Dept. of Computer Science University of Toronto, Toronto, Ontario, Canada November 1999				

EXAMINER		DATE CONSIDERED
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.		